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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,544	09/18/2003	David L. Hallahan	CL1970USCIP	4273

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EXAMINER

SOLOLA, TAOFIQ A

ART UNIT PAPER NUMBER

1626

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,544

Applicant(s)

HALLAHAN, DAVID L.

Examiner

Taofiq A. Solola

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 3.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-25 are pending in this application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Under US patent practice, a use claim without setting forth the steps involved in the process is an improper definition of a process, under 35 U.S.C. See *Ex parte Dunki*, 153 USPQ 678 (Bd. App, 1967) and *Clin. Products v. Brenner*, 149 USPQ 475 (D.D.C.,1966).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "matter" in line 1 of claims 1, 16-17, renders is not defined in the specification as to as ascertain what is claiming in claims 1-17.

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The terms "alcohols", "esters", "aldehydes", "ketones" "organic materials" lines 12-14, claim 8, are not defined in the specification so as to determine the structures of the compounds being claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "matter" in line 1 of claims 1, 16-17, is not defined in the claims so as to ascertain the meets and bounds of claims 1-17. Therefore, the claims are indefinite.

Claims 11-12, 16-17 are drawn compositions of the compounds of claim 1. They recite utilities of compounds of claim 1. However, utility is not a limitation in a composition claim. Also, according to the specification, compounds of claim 1 have the recited utilities. Therefore, the claims 11-12 fail to further limit scope of claim 1 and claims 16-17 are duplicates of claim 1. Under US patent practice a claim must be in duplicate in the same application. By deleting claims 16-17 the rejection would be overcome.

The terms "alcohols", "esters", "aldehydes", "ketones" "organic materials" lines 12-14, claim 8, are not defined in the claim so as to determine the meet and bound of the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, are rejected under 35 U.S.C. 102(b) as being anticipated by Jefson et al., J. Chem. Ecology, Vol. 9, No 1, 1983, pages 159-179.

Jefson et al., disclose dihydronepetalactone, it's isomers and non-dihydronepetalactone compounds as insect repellents. Jefson et al., prepared a composition of dihydronepetalactone which is used to impart repellent effect on ants (insects).

Claims 20-25, are rejected under 35 U.S.C. 102(b) as being anticipated Regnier et al., Phytochemistry, Vol. 6, (1967), pages 1281-1289.

Regnier et al., disclose a process of dihydronepetalactone comprising hydrogenation of nepetalactone. See page 1285, lines 1-12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 11-18, rejected under 35 U.S.C. 103(a) as being unpatentable over Jefson et al., J. Chem. Ecology, Vol. 9, No 1, 1983, pages 159-179, alone or in view of Eisner, Science, Vol.146 (1964), pp. 1318-1320.

Applicant claims compositions of dihydronepetalactone and it's isomers as insect repellents. In preferred embodiments Applicant claims specific range of dihydronepetalactone as weight percent of the composition, adaptation of the repellent as aerosol, skin surface

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evaporation rate, and several articles of manufacture applicable to insects and human.

Applicant also claims compositions, which further comprise known repellent (cocktail).

Determination of the scope and content of the prior art (MPEP §2141.01)

Jefson et al., teach dihydronepetalactone, it's isomers and none- dihydronepetalactone compounds as insect repellents. Jefson et al., prepared a composition of dihydronepetalactone, which is used to impart repellent effect on ants.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant invention and that of Jefson et al., is that Applicant claims specific range of dihydronepetalactone as weight percent of the composition, adaptation of the repellent as aerosol, skin surface evaporation rate, several articles of manufacture and cocktail while Jefson et al., do not teach any of these or the cocktail.

Finding of prima facie obviousness---rational and motivation (MPEP §2142.2413)

However, Eisner teaches compound II as repellent to ants, beetles, spiders, birds etc. and compounds V as having catnip-like activity. The catnip, nepetalactone has a structure that is closely related to dihydronepetalactone, while compounds II and V are isomers of dihydronepetalactone. Claiming specific range of dihydronepetalactone as weight percent of the composition, adaptation of the repellent as aerosol, skin surface evaporation rate, and cocktail in of themselves are 1) not patentable, and 2) not patentable over the prior art of Jefson et al. and/or Eisner. Using cocktail composition is well known in the art. (for example see 4,869,896). Therefore, the instant invention is prima facie obvious from the teachings of Jefson et al., and Eisner. One of ordinary skill in the art would have known to claim specific range of dihydronepetalactone as weight percent of the composition, adaptation of the repellent as aerosol, skin surface evaporation rate, and cocktail at the time the invention was made.

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The motivation is from the teachings of Jefson et al., and/or Eisner that dihydronepetalactone, its isomers and non-dihydronepetalactone compounds are insect repellents, and because it is well known in the art to make repellents that have specific range of the active compound as weight percent of the composition, adaptation of repellants as aerosol, skin surface evaporation rate, and cocktail. The motivation is also from well-established principle of structure-activity relationship. That is, compounds having similar structures are expected to have similar biological and chemical activities.

Applicant may not claim the composition of a compound that is not Applicant's invention. Dihydronepetalactone and its isomers are natural compounds and Applicant is not the first to identify or purify them.

The motivation is from the teaching of Jefson et al., that dihydronepetalactone, its isomers and none-dihydronepetalactone compounds are insect repellents, and because it is well known in the art to make repellents that have specific range of the active compound as weight percent of the composition, adaptation of repellants as aerosol, skin surface evaporation rate, and articles of manufacture applicable to both insects and human.

Applicant may not claim the composition of a compound that is not Applicant's invention. Dihydronepetalactone is a natural compound and Applicant is not the first to identify or purify it.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The

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filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-19 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-8, 10-16, 18, 27-37, 101-155 of copending Application No. 10/392,455. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taofiq A. Solola, PhD, J.D whose telephone number is (703) 308-4690.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph McKane, can be reached on (703) 308-4532. The fax phone number for this Group is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.


TAOFIQ SOLOLA
PRIMARY EXAMINER
Group 1626

July 19, 2004